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Mike King will shortly ask everyone for an update on their processing requirements with a response date probably in early June. At Vince's request we are generating a interim update to the MODIS estimate this month as a "heads up" for the Project. Our June response will be more soundly based as we are continuing to collect information and endeavoring to obtain a more direct basis for each estimate. This is a preliminary version of our interim MODIS Processing estimate

At present we have responses back from various Science Team Members for 40 of the 68 Level 2 through Level 4 products. We do not have estimates for Level 1b or Classification Masks.

40/68 of Science algorithms	621
scaled assumption for remaining algs (621*28/40)	435
Level 1a	100[A]
Level 1b and MASK (my —unendorsed by MCST— WAG)	1000[B]
(estimates by MCST due next week and in mid-June)	
Subtotal	2156

Notes A and B:

A) This includes only minimal ground processing for earth location and assumes that the spacecraft location and attitude and the instrument pointing knowledge are as currently anticipated rather than built to spec. At present neither the Project nor any of the involved contractors will commit to this level of performance. A requirement for continuous ground control point processing could add substantially to this estimate. (Perhaps x10.)

B) This is the basic instrument/prelaunch type of calibration. It assumes a stable instrument with no requirement for ongoing operational image analysis for detection of or correction to the calibration on a short time scale basis. This is probably unrealistically low since NASA has never built an imager that did not need more processing than is assumed herein. A better estimate of instrument performance will be available after testing of the engineering model in 1994.

Attach. # 1
Tel. Tan. w/ta - 4/29/93

None of the above includes adequate exception coding which will be required for operational processing.
Assumption, add 50% 1078

Adjusted subtotal 3254

There was no provision for the production of operational quality control products to support daily assessment of output (assume add 10%) 330

3600

Reco`mended Interim assessment ~~3300~~MFLOPS*

*NOTE WELL: The actual UARS processing requirement grew by a factor of 20 - 25 from their estimate at this point in the UARS development. We may be smarter than they were (although that is arguable) and we have tried to make some allowance for growth but it would be foolish not to assume that there will be similar MODIS growth.

These estimates are for actual processing done operationally by MODIS. They are based on continuous 24 hour per day operation and contain no allowance for any operational constraints or scheduler inefficances. They do not include allowance for many factors which the EOSDIS System will want to consider such as:

- Any margin other than described assumptions shown above
- Any reprocessing
- Code development, test and integration
- Machine/Operating System maintenance
- Scheduler/Operating System overhead
- normal operational redo (failure recovery, not reprocessing)

AJF 4/29/93